



west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-2759B
Plant ID No.: 081-00207
Applicant: Southern West Virginia Asphalt, Inc. (SWVA)
Facility Name: HMA Plant #33
Location: Beaver, Raleigh County
NAICS Code: 324121
Application Type: Modification
Received Date: February 6, 2014
Engineer Assigned: Thornton E. Martin Jr.
Fee Amount: \$2,000.00
Date Received: February 10, 2014
Complete Date: March 17, 2014
Applicant Ad Date: February 11, 2014
Newspaper: *The Register-Herald*
UTM's: Easting: 489.975 km Northing: 4180.804km Zone: 17
Description: Applicant proposes to add a portable recycled asphalt pavement (RAP) system (Prosizer 3100) to process RAP material, powered by ENG1 [RAP-1E]. The unit will be utilized for a short time before it is moved to another site. The unit will return to the site as needed.

DESCRIPTION OF PROCESS

The following process description applies to Southern West Virginia Asphalt, Inc.'s (SWVA) HMA Plant # 33 current facility as it operates under Registration R13-2759A, issued on August 09, 2013.

Existing Facility

Aggregates (limestone, sand, and slag) are trucked to the site and stored in open stockpiles OS1/N through OS6/N (TP1/MD and TP2/MD). Recycled asphalt pavement (RAP) is trucked to the site and stored in open stockpile OS7/N (TP11/MD and TP12/MD). Clean coal is transported to the site and stored in stockpile OS8/PE (TP22/MD and TP23/PE), which is partially enclosed by a three-sided structure with a roof. Asphaltic cement is trucked to the site and stored in new heated tanks T1 through T3. Asphaltic emulsion (tack) is trucked to the site and stored in heated tank T4. Material from T4 is not used in the production of asphalt, but is sold. Tanks T1 through T4 are heated with a No. 2 fuel oil-fired

hot oil heater AH1/N [2E]. No. 2 fuel oil is trucked to the site and stored in tank T6. Off-road diesel is trucked to the site and stored in tanks T5 and T9. Used oil is trucked to the site and stored in tanks T7 and T8. Natural gas is piped to the facility.

Aggregates from stockpiles OS1/N through OS6/N are transferred by a front endloader to cold feed bins B1/PE through B7/PE (TP3/MD). The aggregates from B1/PE and B2/PE drop onto belt conveyors BC1/PE and BC2/PE (TP4/PE), respectively. Aggregates from B3/PE through B7/PE drop onto belt conveyor BC4/N (TP5/PE). Belt conveyors BC3/N and BC4/N transfer the material to belt conveyor BC5/N (TP6/N), which carries it to the in-line scalping screen SCR1/PE (TP7/PE). Oversized material falls to the ground (TP8/N) and properly sized material drops onto belt conveyor BC6/N (TP9/PE), which conveys the aggregates to the dryer/drum mixer CFDM1/APCD1 & APCD2 (TP10/PE).

RAP from stockpile OS7/N is transferred by front endloader to RAP bins B8/PE and B9/PE (TP13/MD). RAP from bin B9/PE drops onto belt conveyor BC7/PE (TP14/PE). Belt conveyor BC7/PE and RAP bin B8/PE transfer material to belt conveyor BC8/N (TP15/PE), which conveys the material to the RAP screen SCR2/PE+WS (TP16/PE). Oversized material drops onto belt conveyor BC9/N and is transported to the RAP crusher CR1/FE (TP18/FE). Material leaving the crusher drops back onto belt conveyor BC8/N (TP19/FE), which transports the material back to the RAP screen. Properly sized RAP leaves the screen and drops onto belt conveyor BC10/N (TP20/PE), which conveys the material to the dryer/drum mixer CFDM1/APCD1 & APCD2 (TP21/PE).

Clean coal from stockpile OS8/PE is transferred by front endloader to the feed bin B10/PE (TP24/MD) of the Astec Coal Preparation System ACSP1/FE. This preparation system meters the coal from the feed bin B10/PE and dries, pulverizes, and blows the coal into the burner on the dryer/drum mixer CFDM1/APCD1 and APCD2. The preparation system is totally enclosed with shaft seals and a rotary air lock on the feed side. The pulverizer is air swept with warm air from the heater and operated with negative pressure. The manufacturer claims that the only potential source of fugitive emissions is from loading the feed bin B10/PE (TP24/MD) with clean coal that would normally be dust free due to moisture content and the absence of fines. A description and pictures of the system are included in Attachment L.

Emissions from CFDM1 are vented to the cyclone APCD1, where large particles are removed from the air stream. The cyclone APCD1 is vented to the baghouse APCD2 [1E]. Particulate matter collected in the hoppers at the bottom of the cyclone APCD1 and baghouse APCD2 is removed via a screw conveyor SC1/FE (TP28/FE) that returns the material to the dryer/drum mixer CFDM1/APCD1 and APCD2 (TP29/FE) where it becomes part of the product.

From the dryer/drum mixer CFDM1/APCD1 and APCD2, hot mix asphalt (HMA) is transferred to a slat conveyor SLC1/FE (TP25/PE), which conveys the material to HMA storage silos BS1/FE through BS5/FE (TP26/PE). The HMA is loaded into trucks via stationary chutes at the base of the silos BS1/FE through BS5/FE (TP27/PE).

Proposed Modification

RAP will be received on-site and is placed in the existing stockpile (OS7). The feed bin (RAP-H1/PE) is fed by an end loader [RAP-TP1/MDH]. The feed bin (RAP-H1/PE) feeds conveyor RAP-BC1/N [RAP-TP2/FE]. The material goes to the screen (RAP-S1/FE) [RAP-TP3/PE] which sorts the material into three sizes. The large material is fed to conveyor RAP-BC2/N [RAP-TP4/FE] to the crusher (RAP-CR1/FE) [RAP-TP5/FE]. Once the material is crushed, the material is sent via RAP-TP7/FE on RAP-BC1/N to the screen. The material can bypass the crusher and return to the stockpile [RAP-TP6/N].

The smaller fractions are discharged to conveyors RAP-BC3/N [RAP-TP8/PE] and RAP-BC4/N [RAP-TP10/PE]. RAP-BC3/N can transfer material to OS7/N or RAP-RS1/N via RAP-TP9/N. Material from RAP-BC4/N can be transferred to either OS7/N or RAP-RS1/N via RAP-TP11/N. Material from RAP-RS1/N is transferred to OS7/N via RAP-TP12/MDH.

The following table identifies the equipment proposed and the equipment as-built from permit applications R13-2759B and R13-2759A:

TABLE 1: Equipment

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity		Type of Change	Control Device ¹
Aggregate Storage							
OS1	OS1	Aggregate Stockpile	2008	5,000 tons	100,000 tpy	None	N
OS2	OS2	Aggregate Stockpile	2008	10,000 tons	200,000 tpy	None	N
OS3	OS3	Aggregate Stockpile	2008	10,000 tons	150,000 tpy	None	N
OS4	OS4	Aggregate Stockpile	2008	10,000 tons	150,000 tpy	None	N
OS5	OS5	Aggregate Stockpile	2008	10,000 tons	50,000 tpy	None	N
OS6	OS6	Aggregate Stockpile	2008	10,000 tons	50,000 tpy	None	N
B1	B1	Aggregate Bin	2008	20 tons	500,000 tpy	None	PE
B2	B2	Aggregate Bin	2008	20 tons		None	PE
B3	B3	Aggregate Bin	2008	20 tons		None	PE
B4	B4	Aggregate Bin	2008	20 tons		None	PE
B5	B5	Aggregate Bin	2008	20 tons		None	PE
B6	B6	Aggregate Bin	2008	20 tons		None	PE
B7	B7	Aggregate Bin	2008	20 tons		None	PE
Feed Circuit							
BC1	BC1	Aggregate Belt Conveyor	2008	400 tph	500,000 tpy	None	PE
BC2	BC2	Aggregate Belt Conveyor	2008	400 tph	500,000 tpy	None	PE
BC3	BC3	Aggregate Belt Conveyor	2008	400 tph	500,000 tpy	None	N
BC4	BC4	Aggregate Belt Conveyor	2008	400 tph	500,000 tpy	None	N
BC5	BC5	Aggregate Belt Conveyor	2008	400 tph	500,000 tpy	None	N
SCR1	SCR1	Aggregate Screen	2008	400 tph	500,000 tpy	None	PE
BC6	BC6	Aggregate Belt Conveyor	2008	400 tph	500,000 tpy	None	N
CFDM1	1E	Counterflow Drum Mix Plant	2008	400 tph	500,000 tpy	None	APCD1 APCD2
RAP Circuit							
OS7	OS7	RAP Stockpile	2008	25,000 tons	50,000 tpy	None	N
B8	B8	RAP Bin	2008	20 tons	50,000 tpy	None	PE
B9	B9	RAP Bin	2008	20 tons		None	PE
BC7	BC7	Rap Belt Conveyor	2008	100 tph	50,000 tpy	None	PE

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity		Type of Change	Control Device ¹
BC8	BC8	RAP Belt Conveyor	2008	100 tph	75,000 tpy	None	N
SCR2	SCR2	RAP Screen	2008	100 tph	75,000 tpy*	None	PW
BC9	BC9	RAP Belt Conveyor	2008	100 tph	25,000 tpy	None	N
CR1	CR1	Rap Crusher	2008	100 tph	25,000 tpy*	None	FE
BC10	BC10	RAP Belt Conveyor	2008	100 tph	50,000 tpy	None	N
RAP-H1	RAP-H1	RAP Hopper	2014	200 tph	200,000 tpy	New	PE
RAP-BC1	RAP-BC1	RAP Belt Conveyor No. 1	2014	200 tph	200,000 tpy	New	N
RAP-S1	RAP-S1	RAP Screen	2014	200 tph	200,000 tpy	New	FE
RAP-BC2	RAP-BC2	RAP Belt Conveyor No. 2	2014	75 tph	75,000 tpy	New	N
ENG1	RAP-1E	2013 John Deere, Tier III Engine for RAP System	2014	173 hp 129 kW	3.19 gal/hr .14MMBtu/gal	New	N
RAP-BC3	RAP-BC3	RAP Belt Conveyor No. 3	2014	200 tph	200,000 tpy	New	N
RAP-BC4	RAP-BC4	RAP Belt Conveyor No. 4	2014	200 tph	200,000 tpy	New	N
RAP-RS1	RAP-RS1	Radial Stacker No. 1	2014	200 tph	200,000 tpy	New	N
RAP-CR1	RAP-CR1	RAP Crusher	2014	75 tph	75,000 tpy	New	FE
HMA Circuit							
OS8	OS8	Coal Stockpile	2008	100 tons	11,000 tpy	None	PE
B10	B10	Coal Bin	2008	100 tons	11,000 tpy	None	PE
ACSP1	ACSP1	Astec Coal Preparation System	2008	3.6 tph	10,000 tpy	None	FE
BS1	BS1	HMA Silo	2008	200 tons	500,000 tpy**	None	FE
BS2	BS2	HMA Silo	2008	200 tons		None	FE
BS3	BS3	HMA Silo	2008	200 tons		None	FE
BS4	BS4	HMA Silo	2008	200 tons		None	FE
BS5	BS5	HMA Silo	2008	200 tons		None	FE
SLC1	SLC1	Slat Conveyor	2008	400 tph	500,000 tpy	None	FE
SC1	SC1	Screw Conveyor	2008	10 tph	12,500 tpy	None	FE
AH1	2E	Hot Oil Heater	2008	14.18 gph	42,881 gal/yr	None	N
Storage Tanks							
T1	PF	Asphalt Cement Storage Tank	2008	30,000 gal	5,900,000 gal/yr	None	N
T2	PF	Asphalt Cement Storage Tank	2008	30,000 gal		None	N
T3	PF	Asphalt Cement Storage Tank	2008	30,000 gal		None	N
T4	PF	Asphalt Emulsion Storage Tank (not used in the production of HMA)	2008	10,000 gal	263,000 gal/yr	None	N
T5	PF	Off-road Diesel Storage Tank	2008	24,500 gal	93,000 gal/yr	None	N
T6	PF	No. 2 Fuel Oil Storage Tank	2008	24,500 gal	886,500 gal/yr	None	N

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity		Type of Change	Control Device ¹
T7	PF	Used Oil Storage Tank	2008	20,000 gal	925,900 gal/yr	None	N
T8	PF	Used Oil Storage Tank	2008	20,000 gal		None	N
T9	PF	Off-road Diesel Storage Tank	2008	2,000 gal	93,000 gal/yr	None	N
Control Devices							
APCD1		ASTEC CYC-76SP Cyclone				None	
APCD2		ASTEC BH-76SP Pulse Jet Baghouse				None	

- ¹ FE - Full Enclosure; PE - Partial Enclosure; PW – Partial Enclosure w/water spray; N – None; APCD1 – Cyclone; APCD2 - Baghouse
- * Assumes that 50% of material that initially passes through screen SCR-1 is oversized and makes the circuit through the crusher CR-1 and back through screen SCR-1.
- ** BS-1 through BS-5 equals 500,00 tons per year combined.

SITE INSPECTION

The facility was inspected on June 24, 2012 by Fred Teel of the DAQ Enforcement Section. The facility was found to be out of compliance because the facility was equipped with one liquid asphalt tank, one waste oil tank, and one insulated product storage silo more than were permitted. Application R13-2579A addressed those issues.

Directions as given in the permit application: From Charleston, take I-77 South, then I-64 East to the Airport Road exit. At base of ramp, veer right onto Airport Road (County Road 9-9). Go approximately 1/3 of a mile and turn right onto the unnamed road leading to the Southern West Virginia Industrial Park. Go approximately 0.2 miles and veer left onto access road just before the Regional Jail. Site is on the left.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Sources of emissions at eligible nonmetallic mineral processing plants include crushers, screens, transfer points (loading, unloading, etc.), open storage piles, bins, haulroads, reciprocating internal combustion engine power units (an installation on site more than 12 months is considered to be a stationary source) and tanks.

Fugitive emission calculations for operations, transfer points, crushing and screening, storage piles, and paved and unpaved haulroads are based on AP-42 Fifth Edition, "Compilation of Air Pollution Emission Factors". The estimated emission calculations were performed by the applicant's consultant and were checked for accuracy and completeness by the writer.

The proposed modification will result in an increased estimated potential to discharge controlled emissions of 13.33 pounds per hour and 6.70 TPY of PM (particulate matter), of which 4.14 pounds per hour and 2.06 TPY are PM₁₀ (particulate matter less than 10 microns in diameter). Other estimated emission increases include: VOC of 0.08 TPY, SO₂ of 0.07 TPY, NO_x of 0.44 TPY, CO of 0.21 TPY and Total HAP's of 0.0011 TPY. Refer to the following tables for a complete summary of the proposed modified facility emissions:

Existing emissions (R13-2759A) from SWVA's hot mix asphalt facility are summarized in the table below:

TABLE 2: Existing Maximum Emissions (R13-2759A)

Pollutant	Maximum Point Source Emissions		Maximum Fugitive Emissions		Facility Total Emissions	
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Total Particulate Matter	31.03	17.18	43.37	25.88	74.40	43.06
Particulate Matter-10	8.93	4.74	12.15	7.37	21.08	12.11
Particulate Matter-2.5	2.56	1.57	1.46	0.89	4.02	2.46
Volatile Organic Compounds	24.11	15.08	Not Applicable		24.11	15.08
Sulfur Dioxide	95.50	59.71			95.50	59.71
Nitrogen Oxides	81.18	50.93			81.18	50.93
Carbon Monoxide	122.45	76.64			122.45	76.64
Hydrochloric Acid	0.08	0.05			0.08	0.05
Acetaldehyde	0.75	0.47			0.75	0.47
Benzene	0.68	0.43			0.68	0.43
Ethylbenzene	0.14	0.01			0.14	0.01
Toluene	1.27	0.79			1.27	0.79
Xylene	0.13	0.08			0.13	0.08
Formaldehyde	1.40	0.88			1.40	0.88
Total HAPs	8.04	5.03			8.04	5.03

Proposed emissions (R13-2759B) from SWVA's hot mix asphalt facility are summarized in the table below:

TABLE 3: Proposed Maximum Emissions (R13-2759B)

Pollutant	Maximum Point Source Emissions		Maximum Fugitive Emissions		Facility Total Emissions	
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Total Particulate Matter	32.86	18.13	54.87	31.63	87.73	49.76
Particulate Matter-10	9.68	5.10	15.54	9.07	25.22	14.17
Particulate Matter-2.5	2.73	1.68	1.80	1.06	4.53	2.74
Volatile Organic Compounds	24.27	15.16	Not Applicable		24.27	15.16
Sulfur Dioxide	95.63	59.78			95.63	59.78
Nitrogen Oxides	82.07	51.37			82.07	51.37
Carbon Monoxide	122.87	76.85			122.87	76.85
Hydrochloric Acid	0.08	0.05			0.08	0.05
Acetaldehyde	0.748	0.47			0.748	0.47
Benzene	0.680	0.43			0.680	0.43
Ethylbenzene	0.143	0.01			0.143	0.01
Toluene	1.265	0.79			1.265	0.79
Xylene	0.128	0.08			0.128	0.08
Formaldehyde	1.40	0.88			1.40	0.88
Total HAPs	8.04	5.03			8.04	5.03

The following table summarizes the change in emissions from previously permitted values (R13-2759A) and proposed emissions (R13-2759B):

TABLE 4: Change in Emissions

Pollutant	Point Source Emissions Increase		Fugitive Emissions Increase		Total Emissions Increase	
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Total Particulate Matter	1.83	0.95	11.50	5.75	13.33	6.70
Particulate Matter-10	0.75	0.36	3.39	1.70	4.14	2.06
Particulate Matter-2.5	0.17	0.11	0.34	0.17	0.51	0.28
Volatile Organic Compounds	0.16	0.08	Not Applicable		0.16	0.08
Sulfur Dioxide	0.13	0.07			0.13	0.07
Nitrogen Oxides	0.89	0.44			0.89	0.44
Carbon Monoxide	0.42	0.21			0.42	0.21
Hydrochloric Acid	0.00	0.00			0.00	0.00
Acetaldehyde	0.00	0.00			0.00	0.00
Benzene	0.00	0.00			0.00	0.00
Ethylbenzene	0.00	0.00			0.00	0.00
Toluene	0.00	0.00			0.00	0.00
Xylene	0.00	0.00			0.00	0.00
Formaldehyde	0.00	0.00			0.00	0.00
Total HAPs	0.00	0.00			0.00	0.00

REGULATORY APPLICABILITY

The following regulations apply to the facility:

45CSR2 *To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers*

The purpose of this rule is to establish limitations for smoke and particulate matter which are discharged from fuel burning units. Per this rule, Section 2.14 defines an indirect heat exchanger as a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. Section 2.10 defines a fuel burning unit as any furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer. The facility will be subject to the opacity requirements in this rule, which is 10% opacity based on a six minute block average.

45CSR3 *To Prevent and Control Air Pollution from the Operation of Hot Mix Asphalt Plants*

The purpose of this rule is to establish emission limitations for hot mix asphalt plants and the plant property. The facility is subject to this rule because it meets the definition of Hot Mix Asphalt Plant as found in Section 2.14. The facility must meet visible emission limits of 40% opacity during start-up or shutdown and 20% opacity during operations of any fuel burning equipment. The facility shall be operated and maintained in a manner as to prevent emission of particulate matter from any point other than a stack outlet. The facility will utilize water sprays and baghouses to minimize particulate emissions.

45CSR7 To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associate Operations

The purpose of this rule is to prevent and control particulate matter air pollution from manufacturing processes and associated operations. The facility is subject to the requirements of this rule because it meets the definition of “Manufacturing Process” found in Section 2.20 of this rule.; Subsection 4.1 – PM emissions shall not exceed those under Table 45-7A (see paragraph below); Subsection 5.1 – manufacturing process must be equipped with a system to minimize emissions (cyclone APCD-1 and baghouse APCD-2 control emissions from the counterflow drum mix plant CFDM1); Subsection 5.2 – minimize PM emissions from haulroads and plant premises (water sprays will be utilized to control these emissions).

According to Table 45-7A, for a type ‘a’ source with a maximum process weight rate of 800,000 lb/hr, the maximum allowable emission rate is approximately 50 lb/hr of particulate matter. The proposed maximum point source emission rate at the facility is 32.86 lb/hr of particulate matter according to calculated emissions in permit application R13-2759B.

45CSR10 To Prevent and Control Air Pollution from Emissions of Sulfur Oxides

The purpose of this rule is to prevent and control air pollution from the emission of sulfur oxides. Per this rule, Section 2.9 defines an indirect heat exchanger as a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. Section 2.8 defines a fuel burning unit as any furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer. According to section 4.1., sulfur dioxide concentrations must fall below 2,000 parts per million by volume.

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

The purpose of this rule is to set forth the procedures for stationary source reporting, and the criteria for obtaining a permit to construct and operate a new stationary source which is not a major stationary source, to modify a non-major stationary source, to make modifications which are not major modifications to an existing major stationary source and to relocate non-major stationary sources within the state of West Virginia.

The applicant is applying for a Rule 13 modification permit for the HMA Plant #33 facility. The facility is subject to the following sections of this rule: reporting requirements, requirements for modifications of stationary sources, demonstrating compliance with stationary sources, public review procedures, and permit application fees. The facility will demonstrate compliance by following all the applicable rules and regulations that apply to the facility. They will also follow the terms and conditions set forth in permit R13-2759B. The permittee published a Class I legal advertisement in *The Register-Herald* on February 11, 2014 and submitted an application fee of \$2,000.00.

45CSR16 Standards of Performance for New Stationary Sources

This rule establishes and adopts standards of performance for new stationary sources promulgated by the United States Environmental Protection Agency pursuant to section 111(b) of the federal Clean Air Act, as amended (CAA). The facility is subject to 40cfr60 Subparts I and OOO.

40CFR60 Subpart I: Standards of Performance for Hot Mix Asphalt Facilities

The facility is subject to this Subpart because it meets the definition of “hot mix asphalt facility” as defined in 60.91(a) – hot mix asphalt facility means any facility used to manufacture hot mix asphalt by heating and drying aggregate and mixing with asphalt cements and consisting of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

40CFR60 Subpart OOO: Standards of Performance for Nonmetallic Minerals Processing Plant

In addition to nonmetallic minerals processing plants, provisions of this subpart also apply to crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart. The facility shall be in compliance with 60.672 (b) no greater than 7% opacity from any transfer point on belt conveyors or from any other affected facility (as defined in 60.670 and 60.671) and no greater than 12% opacity from any crusher when the particulate matter control methods and devices (all control methods shown in equipment table) proposed within application R13-2759B are in operation.

45CFR60 Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Southern West Virginia Asphalt, Inc. is subject to this subpart because the engine was manufactured after April 1, 2006. The engine emissions for ENG1 [RAP-1E] is EPA Interim Tier IV Certified, Certificate Number: DJDXL06.8210-019.

40CFR63 Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Southern West Virginia Asphalt, Inc. is subject to 40CFR63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, because ENG1 is considered a new area source of HAPs since it will be constructed on or after June 12, 2006, however, the only requirements that apply are those required under 45CFR60 Subpart IIII.

The proposed modification of Southern West Virginia Asphalt, Inc.'s existing aggregate processing facility is not subject to the following state and federal rules:

45CSR14 Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration

In accordance with 45CSR14 Major Source Determination, the proposed additions and aggregate processing facilities are not listed in Table 1. The facilities will have a total potential to emit 18.13 TPY of a regulated air pollutant (PM), not including fugitive emissions, which is less than the 45CSR14 threshold of 250 TPY. This facility is not listed in Table 2, and so fugitive emissions are not included when determining source applicability. Therefore, the proposed construction is not subject to the requirements set forth within 45CSR14.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Small amounts of non-criteria regulated hazardous or toxic air pollutants such as benzene, ethylbenzene, toluene, xylenes and formaldehyde may be emitted during the production of hot mix asphalt. Due to the small amounts emitted, these non-criteria regulated hazardous/toxic pollutants should not adversely impact an applicable ambient air quality standard or cause or contribute to degradation of public health and welfare. A toxicity analysis would be required when the Director determines the facility may interfere with attainment or maintenance of an applicable ambient air quality standard or cause or contribute to degradation of public health and welfare.

AIR QUALITY IMPACT ANALYSIS

The facility will not be a major source as defined by 45CSR14. Based on the nature of the emissions and the annual emission rate, no air quality impact analysis was performed.

MONITORING OF OPERATIONS

SWVA will be required to monitor and maintain records of daily and yearly asphalt production, hours of operation, water truck water usage, type and amount of fuel used in the dryer, and sulfur content of the #2 fuel oil. These records shall be maintained on site for a period of five (5) years.

CHANGES TO PERMIT R13-2759A

- Addition of Portable Recycled Asphalt Pavement (RAP) Processing equipment to include:
 - One (1) Feed Bin
 - One (1) Triple Deck Screen
 - One (1) Hammer Mill Crusher
 - Four (4) Belt Conveyors
 - One (1) Radial Stacker
 - One (1) Diesel Engine (2013 John Deere, 173hp, Interim Tier IV Certification)

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates SWVA's hot mix asphalt facility meets all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Raleigh County location should be granted a 45CSR13 modification permit for their facility.

Thornton E. Martin Jr.
Permit Engineer

March 17, 2014
Date